

Ship 18 mai

Work Order ID 161335

161335

Page 1

Thursday, May 11, 2017 1:23:16 PM

Item ID: 647.7301

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 5/18/2017 Req'd Qty: 1.00 *1*

Customer:

Reference: SCHEDULED/C

Approvals:

Process Plan:

Date: MAY 10 2017

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
647.7300	C								
100	Document Control								
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP 647.7301								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.00							
Quality Control									

MAY 11 2017

DAS
27
9-89MAY 16 2017
DAS
6
9-89MAY 12 2017
DAS
28
9-89DAS
27
9-89

MAY 16 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

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MAY 16 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : ☐			

Picklist Print

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Page 1

Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.10.05 NEW ISSUE DD VERF:JLM
REV:B 16.04.26 sa per dwg revB DD VERF:JLM
16.11.15 dwg rev.c DD VERF:JLM

IPP
IPP REV:C

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

600.0990		Purchased	No			110	Each	18.0000	1	1			
----------	--	-----------	----	--	--	-----	------	---------	---	---	--	--	--

600 0990

Magnabond 6398 Part A Size 112 ml

**

DAS
28
9-89

Location

Loc Qty

Loc Code

PKG

18

M136586

1

M136862

4

M137073

12

M134249

1

1/1/2017

600.0991		Purchased	No			110	Each	18.0000	1	1			
----------	--	-----------	----	--	--	-----	------	---------	---	---	--	--	--

600 0991

Magnabond 6398 Part B Size 112 ml

**

DAS
28
9-89

Location

Loc Qty

Loc Code

PKG

18

m136586

2

m136862

4

m137073

12

600.1012		Purchased	No			110	Each	27.0000	1	1			
----------	--	-----------	----	--	--	-----	------	---------	---	---	--	--	--

600 1012

Sealant PR1425B2 (#654 sem)

**

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck017

27

m136838

1

m1370073

4

m137321

8

m137371

14

11/2017

DAS
27
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

601.2045 Purchased No

110 Each 10.0000 1 1

601 2045

RTV (LOCTITE 598) McMaster p/n: 6641A41

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK096

2

m136902

2

GA

8

m134260

8

601.2375 Manufactured No

110 Each 27.0000 3 3

601 2375

Washer

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK096

27

91708

27

601.2999 Manufactured No

110 Each 28.0000 3 3

601 2999

Screw

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK098

28

93369

28

601.3004 Purchased No

110 Each 6.0000 2 2

601 3004

Camloc Stud - 26S8-11

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK098

6

M130388

6

Thursday, May 11, 2017 1:23:14 PM

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By					
				Lead hand / Supervisor Approval Verification					
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Root Cause		FAULT CATEGORY							
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OTHER : ☐									

Picklist Print

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

601.3005 Manufactured No

110 Each 18.0000 2 2

601 3005

Camloc Retainer - 2600-LW

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK098

18

158642

18

601.3006 Purchased No

110 Each 6.0000 2 2

601 3006

Camloc Receptacle - 26R 16

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK098

6

M130388

6

601.3011 Manufactured No

110 f 44.5000 1.4 1.4

601 3011

P-Seal

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK095

44.4

91709

44.4

CCK099

0.1

M130388

0.1

CUT AT 16.00"

647.0112 Manufactured No

110 Each 55.0000 4 4

647 0112

Strut Bracket

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK106

55

159844

55

Thursday, May 11, 2017 1:23:14 PM

Shop Packet Print

Page 3

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Thursday, May 11, 2017 1:23:14 PM

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

647.1601 Manufactured No

110 Each

2.0000

1 1

**

DAS 6 9-89 MAY 12 2017

647 1601

Wiper Deflector Aft

DAS 27 9-89

Location

Loc Qty

Loc Code

CCK091

2

155569

2

647.1602 Manufactured No

110 Each

16.0000

1 1

**

DAS 6 9-89 MAY 12 2017

647 1602

Doubler Assembly

DAS 27 9-89

Location

Loc Qty

Loc Code

CCK107

16

M130388

16

647.1610 Manufactured No

110 Each

6.0000

1 1

**

DAS 6 9-89 MAY 12 2017

647 1610

Wiper Deflector Fwd

DAS 27 9-89

Location

Loc Qty

Loc Code

CCK091

6

125082

6

647.1701 Manufactured No

110 Each

2.0000

2 2

**

DAS 6 9-89 MAY 12 2017

647 1701

Skid Deflector Assembly

DAS 27 9-89

Location

Loc Qty

Loc Code

CCK033

2

141079

2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			

Picklist Print

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

647.1810
647 1810
Nose Door Doubler

Manufactured No

110 Each 16.0000 1 1

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location	Loc Qty	Loc Code
CCK108	16	
92070	2	
M130388	14	

647.1811
647 1811
Spacer

Manufactured No

110 Each 39.0000 2 2

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location	Loc Qty	Loc Code
CCK108	39	
92072	5	
M130388	34	

647.1812
647 1812
Shim

Manufactured No

110 Each 249.0000 13 13

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location	Loc Qty	Loc Code
CCK107	249	
92073	51	
M130388	198	

647.1814
647 1814
Gusset LH

Manufactured No

110 Each 29.0000 1 1

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location	Loc Qty	Loc Code
cck122A	29	
92075	5	
M130388	24	

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Shop Packet Print

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
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Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : ☐			

Picklist Print

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

647.1815 Manufactured No

110 Each 27.0000 1 1

647 1815

Gusset RH

**

DAS

6

9-89

MAY 12 2017

DAS

28

9-89

Location

Loc Qty

Loc Code

CCK110

3

92076

3

cck122A

24

M130388

24

647.1818 Manufactured No

110 Each 26.0000 1 1

647 1818

Nose Door Spacer

**

DAS

6

9-89

MAY 12 2017

DAS

28

9-89

Location

Loc Qty

Loc Code

CCK110

2

92079

2

cck122A

24

M130388

24

647.1913 Manufactured No

110 Each 14.0000 1 1

647 1913

Tee

**

DAS

6

9-89

MAY 12 2017

DAS

28

9-89

Location

Loc Qty

Loc Code

CCK093

14

114126

3

92229

10

94139

1

647.1914 Manufactured No

110 Each 2.0000 1 1

647 1914

Bracket

**

DAS

6

9-89

MAY 12 2017

DAS

28

9-89

Location

Loc Qty

Loc Code

CCK110

2

153314

2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step # : _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : _____									

Picklist Print

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

647.1915 Manufactured No

110 Each 23.0000 1 1

647 1915

Support Angle

**

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK093

23

114127

6

92230

5

M130388

12

647.2510 Manufactured No

110 Each 99.0000 4 4

647 2510

Sleeve

**

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck111

34

M130388

34

cck122A

60

125082

60

Q

5

125082

3

92233

2

647.2511 Manufactured No

110 Each 35.0000 4 4

647 2511

Nut

**

MAY 12 2017

DAS
6
9-89

DA
21
9-8

Location

Loc Qty

Loc Code

cck111

22

159807

22

cck116

13

159807

13

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

Picklist Print

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

647.3201 Manufactured No

110 Each 1.0000 1 1

647 3201

Grounding Cable Assembly
DAS 27 9-89

**

DAS 6 9-89

MAY 12 2017

DAS 28 9-89

Location

Loc Qty

Loc Code

cck111

1

158625

1

647.7401 Manufactured No

110 Each 0.0000 1 1

647 7401

Upper Cutter Assembly
DAS 27 9-89

**

DAS 6 9-89

MAY 12 2017

DAS 28 9-89

161336

Location

Loc Qty

Loc Code

cck001

1

159418

1

647.7701 Manufactured No

110 Each 2.0000 2 2

647 7701

Strut Assembly

**

DAS 6 9-89

MAY 12 2017

DAS 28 9-89

Location

Loc Qty

Loc Code

CCK114

2

153191

1

154421

1

647.7702 Manufactured No

110 Each 6.0000 2 2

647 7702

Strut Assembly

**

DAS 6 9-89

MAY 12 2017

DAS 28 9-89

Location

Loc Qty

Loc Code

CCK076

6

154420

4

154668 ✓

2

DAS 27 9-89

2

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step # : _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : ☐									

Picklist Print

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

647.7818 Manufactured No

110 Each 13.0000 1 1

647 7818

Mounting Channel

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK067

13

120939

5

123161

7

M130388

1

647.7819 Manufactured No

110 Each 6.0000 1 1

647 7819

Cross Bracket Fwd

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK115

6

M130388

6

647.7820 Manufactured No

110 Each 5.0000 1 1

647 7820

Cross Bracket Aft

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

cck066

5

132172

4

M130388

1

647.7821 Manufactured No

110 Each 7.0000 1 1

647 7821

Eye Bolt Fitting LH

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK115

1

121378

1

CCK121

6

130388

6

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Page 9

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : ☐			

Picklist Print

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

647.7822 Manufactured No

110 Each 7.0000 1 1

647 7822

Eye Bolt Fitting RH

**

MAY 12 2017

DAS

6

9-89

DAS

28

9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK121

7

M130388

7

647.7910 Manufactured No

110 Each 2.0000 2 2

647 7910

Angle Bracket

**

MAY 12 2017

DAS

6

9-89

DAS

28

9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK115

2

153512

2

647.7911 Manufactured No

110 Each 7.0000 2 2

647 7911

Bracket

**

MAY 12 2017

DAS

6

9-89

DAS

28

9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK115

7

M130388

7

647.7912 Manufactured No

110 Each 21.0000 4 4

647 7912

Clip

**

MAY 12 2017

DAS

6

9-89

DAS

28

9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK115

21

157794

21

647.7913 Manufactured No

110 Each 2.0000 2 2

647 7913

Doubler

**

MAY 12 2017

DAS

28

9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK115

2

158345

2

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Page 10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date: _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																				
		OTHER : _____																							

Picklist Print

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

647.7914
647 7914
Bracket

Manufactured No

110

Each

1.0000

1

1

**

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK115

1

M130388

1

647.7915
647 7915
Bracket

Manufactured No

110

Each

10.0000

1

1

**

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck116

10

M130388

10

647.7916
647 7916
Bracket

Manufactured No

110

Each

18.0000

2

2

**

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck116

18

M130388

18

647.7917
647 7917
Bracket

Manufactured No

110

Each

14.0000

1

1

**

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck116

14

131356

14

647.7918
647 7918
Bracket

Manufactured No

110

Each

12.0000

1

1

**

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck116

12

119630

12

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Shop Packet Print

Page 11

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

Picklist Print

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

647.7919 Manufactured No

110 Each 7.0000

MAY 12 2017

647 7919

Shim

DAS
27
9-89

**

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck116

7

157799

7

1

18

647.8510

Manufactured No

110 Each 22.0000

MAY 12 2017

647 8510

Insert

DAS
27
9-89

**

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck116

22

157777

2

158923

20

2

16

647.8511

Manufactured No

110 Each 17.0000

MAY 12 2017

647 8511

Insert

DAS
27
9-89

**

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck116

17

158396

1

158626

16

2

3

647.8512

Manufactured No

110 Each 14.0000

MAY 12 2017

647 8512

Insert

DAS
27
9-89

**

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck116

14

159419

12

M130388

2

2

2

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
								Lead hand / Supervisor Approval Verification																	
								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			OTHER : ☐																	

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

AN3-11A Purchased No

110 Each 284.0000 4 4

AN3-11A

Bolt

**

DAS
6

MAY 12 2017

DAS
28

9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

over003

100

m136192

100

ST349

184

153855

184

AN316C4R Purchased No

110 Each 21.0000 4 4

AN316C4R

Nut, Jam

**

DAS
6

MAY 12 2017

DAS
28

9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST331

21

153850

21

AN3-4A Purchased No

110 Each 41.0000 2 2

AN3-4A

Bolt

**

DAS
6

MAY 12 2017

DAS
28

9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST350

41

m136579

41

AN44-12A Purchased No

110 Each 5.0000 2 2

AN44-12A

Eyebolt

**

DAS
6

MAY 12 2017

DAS
28

9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST339

5

m137280

5

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Page 13

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

AN44-5A Purchased No
AN44-5A
Eyebolt

110 Each 17.0000 2 2
**

DAS 6 9-89
MAY 12 2017
DAS 28 9-89

Location	Loc Qty	Loc Code
ST339	17	
m136866	5	
m137075	12	

2

AN4C7A Purchased No
AN4C7A
BOLT

110 Each 107.0000 4 4
**

DAS 6 9-89
MAY 12 2017
DAS 28 9-89

Location	Loc Qty	Loc Code
OVER002	75	
m137361	75	
ST345	32	
m136295	32	

4

AN4CH6A Purchased No
AN4CH6A
Bolt

110 Each 32.0000 1 1
**

DAS 6 9-89
MAY 12 2017
DAS 28 9-89

Location	Loc Qty	Loc Code
ST345	32	
123525	12	
m126176	20	

1

AN665-34R Purchased No
AN665-34R
Clevis

110 Each 18.0000 4 4
**

DAS 6 9-89
MAY 12 2017
DAS 28 9-89

Location	Loc Qty	Loc Code
ST330	18	
m137361	18	

4

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																				
OTHER :																									

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

CCR264SS-3-03 Purchased No

110 Each 235.0000 24 24

CCR264SS-3-03

Cherry Rivet

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

Location Loc Qty Loc Code

FP001 16

m137164 16

LG001 13

m134023 13

ST321 206

m137164 206

CCR274SS-3-03 Purchased No

110 Each 69.0000 4 4

CCR274SS-3-03

Rivet

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

Location Loc Qty Loc Code

ST321 69

123785 69

CR3212-5-6 Purchased No

110 Each 100.0000 2 2

CR3212-5-6

Cherry Rivet

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

Location Loc Qty Loc Code

CCK003 100

124259 100

CR3213-4-2 Purchased No

110 Each 178.0000 4 4

CR3213-4-2

Cherry Rivet

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

Location Loc Qty Loc Code

CCK003 100

m137412 100

ST320 78

m136986 78

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

Picklist Print

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

CR3213-4-3 Purchased No

110 Each 320.0000 24 24

CR3213-4-3

Rivet, Cherry

**

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

03

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK003

228

m136851

228

GA

92

m136042

92

136665

CR3213-4-4 Purchased No

110 Each 377.0000 16 16

CR3213-4-4

Rivet, Cherry

**

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK003

200

m137391

200

ST319

177

m136301

177

16

CR3213-4-5 Purchased No

110 Each 93.0000 8 8

CR3213-4-5

Rivet

**

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST319

93

M129913

3

M137361

90

137361

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

Picklist Print

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

CR3213-4-6

Purchased

No

110

Each

225.0000

17

17

CR3213-4-6

Rivet

**

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK003

200

M135978

100

M136199

100

ST319

25

M131800

25

17

CR3213-5-3

Purchased

No

110

Each

232.0000

16

16

CR3213-5-3

Cherry Rivet

**

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK003

100

m137391

100

over003

100

m137320

100

ST319

32

m136851

32

16

CR3213-5-4

Purchased

No

110

Each

117.0000

12

12

CR3213-5-4

Cherry Rivet

**

MAY 12 2017

DAS
6
9-89

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST319

105

123785

5

m128199

100

WA003

12

117543

12

4

8

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : _____			

Picklist Print

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

CR3522-4-3	Purchased	No	110	Each	10.0000	8	8	MAY 12 2017	DAS 27 9-89	DAS 28 9-89
CR3522-4-3										
Rivet										
			<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>					
			ST318	10						
			124876	10						
CR3522-5-3	Purchased	No	110	Each	68.0000	8	8	MAY 12 2017	DAS 27 9-89	DAS 28 9-89
CR3522-5-3										
Rivet										
			<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>					
			ST317	68						
			m136199	68						
CR3523-4-3	Purchased	No	110	Each	42.0000	4	4	MAY 12 2017	DAS 27 9-89	DAS 28 9-89
CR3523-4-3										
Rivet										
			<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>					
			ST317	42						
			m129764	42						
CR3523-4-4	Purchased	No	110	Each	89.0000	24	24	MAY 12 2017	DAS 27 9-89	DAS 28 9-89
CR3523-4-4										
Rivet										
			<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>					
			ST317	89						
			m127255	89						
CR3523-5-3	Purchased	No	110	Each	44.0000	8	8	MAY 12 2017	DAS 27 9-89	DAS 28 9-89
CR3523-5-3										
Rivet										
			<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>					
			ST317	44						
			m134962	44						

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Part Due ☐																																																																

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Page 19

Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042-08 MS21042L08 Purchased No

110 Each 0.0000 7 7

MS21042-08

USE MS21042L08

**

137320

DAS

MS21042-3 MS21042L3 Purchased No

110 Each 0.0000 34 34

MS21042-3

Nut

**

137321

DAS

MS21042L4 Purchased No

110 Each 2,854.000 8 8

MS21042L 4

Nut

**

DAS
6
9-89

Location

Loc Qty

Loc Code

FP001

10

m133363

10

GA

148

m135058

148

OVER007

1400

m137371

1000

m137402

400

ST303

1296

m137321

1296

MS21042L5 Purchased No

110 Each 199.0000 4 4

MS21042L 5

Nut

**

DAS
6
9-89

Location

Loc Qty

Loc Code

GA

16

m127813

16

ST303

183

m137075

33

m137361

150

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Page 19

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date : _____		Step # : _____		QTY Effective : _____			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																	
		OTHER : _____																							

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Page 20

Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS21047-3	Purchased	No	110	Each	97.0000	12	12
-----------	-----------	----	-----	------	---------	----	----

MS21047-3

Nut Plate

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST301

97

m137075

97

MS21266-2N

Purchased No

110 Each 37.0000 1 1

MS21266-2N

Grommet

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST294

37

123900

37

MS24694-S54

Purchased No

110 Each 80.0000 6 6

MS24694-S54

SCREW

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST284

80

153846

80

MS27039-08-07

Purchased No

110 Each 92.0000 1 1

MS27039-08-07

SCREW

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST278

92

m132035

92

MS27039-08-13

Purchased No

110 Each 310.0000 4 4

MS27039-08-13

Screw

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

68-6
17
SVC

Location

Loc Qty

Loc Code

ST278

310

153849

310

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Page 20

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
								OTHER : ☐	

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Page 21

Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS27039-08-16

Purchased

No

110

Each

73.0000

2

2

MS27039-08-16

SCREW PAN HD

**

DAS
6
9-89

MAY 12 2017

Location

Loc Qty

Loc Code

CA

48

112466

48

ST278

25

M130388

25

MS27039-1-07

Purchased

No

110

Each

65.0000

3

3

MS27039-1-07

Screw

**

DAS
6
9-89

MAY 12 2017

Location

Loc Qty

Loc Code

GA

48

m137320

48

ST281

17

m135948

17

MS27039-1-09

Purchased

No

110

Each

79.0000

12

12

MS27039-1-09

Screw

**

DAS
6
9-89

MAY 12 2017

Location

Loc Qty

Loc Code

FP001

28

18057

28

GA

50

124859

50

ST280

1

m135056

1

DAS
27
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																	
		OTHER :																							

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Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-10

Purchased

No

110

Each

287.0000

6

6

DAS

6
9-89

MAY 12 2017

DAS
28
9-89

MS27039-1-10
SCREW

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

15

m129541

15

ST280

272

m137164

272

MS27039-1-12

Purchased

No

110

Each

84.0000

2

2

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

MS27039-1-12
Screw

DAS
27
9-89

Location

Loc Qty

Loc Code

ST280

84

m136537

34

m137320

50

MS27039-1-14

Purchased

No

110

Each

636.0000

4

4

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

MS27039-1-14
Screw

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

90

120449

90

over006

300

124326

300

ST280

246

124326

246

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step # : _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
24-0 TS 30-0 24-0 TS 30-0				24-0 TS 30-0 24-0 TS 30-0			Completed By 		
							Lead hand / Supervisor Approval Verification 		
							QC / QA Coordinator Approval 		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : ☐ _____									

Picklist Print

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Page 23

Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-15

Purchased

No

110

Each

130.0000

1

1

MS27039-1-15

Screw

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

65

m127916

1

m136554

64

ST280

65

m136406

65

DAS
27
9-89

MS27039-1-16

Purchased

No

110

Each

153.0000

4

4

MS27039-1-16

Screw

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

over006

50

m137061

50

ST280

103

m136851

3

m137320

100

DAS
27
9-89

MS27039-1-17

Purchased

No

110

Each

150.0000

2

2

MS27039-1-17

Screw (601.1954)

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

150

m127831

150

DAS
27
9-89

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Page 23

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step # : _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
OTHER : _____									

Picklist Print

Thursday, May 11, 2017 1:23:16 PM

Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149C0432R

Purchased

No

110

Each

784.0000

8

8

NAS1149C0432R
WASHER

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

357

m134676

357

ST266

427

m136986

427

NAS1149F0332P

Purchased

No

110

Each

2,819.000

86

86

NAS1149F0332P
Washer

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

275

m133709

275

ST260a

1800

m137412

1800

ST262

744

m137075

744

NAS1149F0463P

Purchased

No

110

Each

369.0000

8

8

NAS1149F0463P
Washer

**

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

ST262

369

m127832

369

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step # : _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		

Picklist Print

Thursday, May 11, 2017 1:23:16 PM

Page 25

Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149F0532P

Purchased

No

110

Each

1,601.000

4

4

NAS1149F0532P

Washer

DAS

MAY 12 2017

6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST260a

600

m133725

600

ST262

1001

18057

1001

NAS1149FN832P

Purchased

No

110

Each

2,208.000

14

14

NAS1149FN832P

Washer

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

358

M135058

208

M136182

40

M136866

110

ST263

1850

M137412

1850

NAS6603-12

Purchased

No

110

Each

115.0000

4

4

NAS6603-12

Bolt

DAS
6
9-89

MAY 12 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

st552

115

123900

80

m136301

35

DAS
27
9-89

Thursday, May 11, 2017 1:23:16 PM

Shop Packet Print

Page 25

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

Picklist Print

Thursday, May 11, 2017 1:23:16 PM

Page 26

Work Order ID: 161335

161335

Parent Item: 647.7301

647 7301

Parent Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

NAS6603-16

Purchased

No

110

Each

60.0000

4

4

NAS6603-16

Bolt

**

DAS
6
9-89

MAY 12 2017
DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

st552

60

153860

10

m133523

50

4

NAS6604-66

Purchased

No

110

Each

58.0000

4

4

NAS6604-66

Bolt

**

DAS
6
9-89

MAY 12 2017
DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST553

58

124328

16

M130388

42

4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

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NOTES: UNLESS OTHERWISE SPECIFIED

- 1 AFTER INSTALLATION, APPLY F/N 90 A/R TO FILL GAPS AND FILLET EDGES.
- 2 APPLY F/N 91 TO FAYING SURFACES.
- 3 DELETED.
- 4 MATCH DRILL HOLES THROUGH F/N 26 OR F/N 98 AND FUSELAGE.
- 5 SHIM GAP BETWEEN F/N 1 & 26 AS NEEDED.
- 6 AT CUSTOMERS OPTION, INSTALL F/N 96 BY MATCH DRILLING ONTO F/N 1 FOR KIT P/N 647.7301 OR F/N 99 FOR KIT P/N 647.7304.
- 7 647.7301 INSTALLATION FOR EC135.
- 8 647.7304 INSTALLATION FOR EC135 T2/P2.
- 9 EXCEPT WHERE NOTED, INSTALLATION FOR 647.7304 AND 647.7307 SAME AS 647.7301.
- 10 CUT LENGTH: 16 INCHES.
- 11 INSTALLATION FOR 647.7307 AND 647.7304 ARE IDENTICAL EXCEPT 647.1405 (F/N 111) REPLACES 647.1404 (F/N 99).
- 12 DETAIL W REFLECTS THE UNIQUE 647.1405 ASSEMBLY (F/N 111) USED ON 647.7307 THAT REPLACES 647.1404 (F/N 99) ON 647.7304.
- 13 ADDITIONAL KITS FOR SUB-ASSEMBLIES OF THE 647.7301, 647.7304, AND 647.7307 ASSEMBLIES ARE DEFINED BY MPP-195

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 16133S

MAY 11 2017

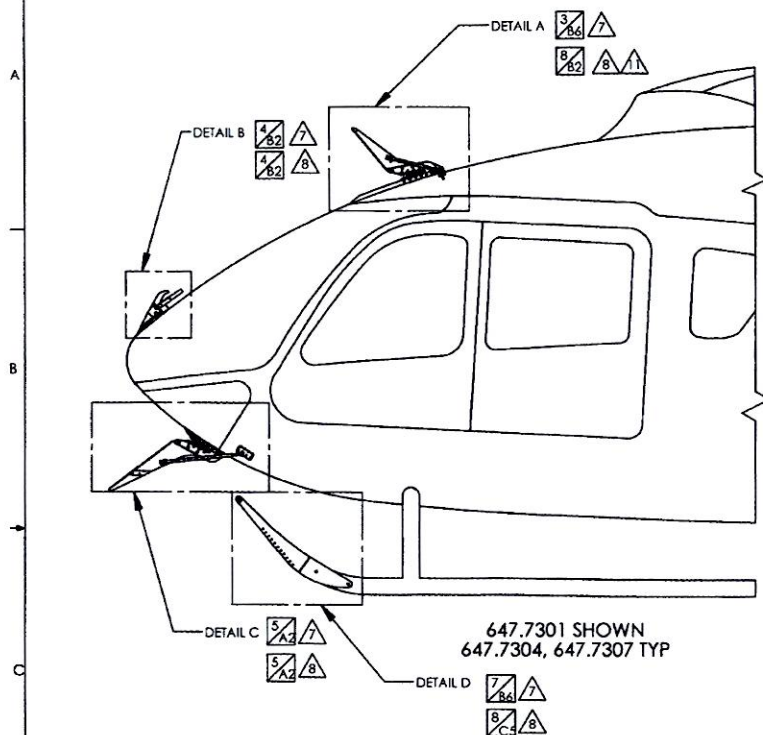
4	4	4	50	601.3130	BOLT	NAS6603-16	
4	4	4	49	601.1500	BOLT	NAS6603-12	
4	4	4	48	601.2669	BOLT	AN4C7A	
1	1	1	47	601.1324	BOLT	AN4C46A	
4	4	4	46	601.2826	BOLT	AN3-11A	
2	2	2	45	601.2823	BOLT	AN3-4A	
12	12	12	44	600.0795	NUTPLATE	MS21047-3	
2	2	2	43	601.3004	CAMLOC STUD		
2	2	2	42	601.3005	CAMLOC RETAINER		
2	2	2	41	601.3006	CAMLOC RECEPTACLE		
4	4	4	40	601.3119	CLEVIS	AN665-34R	
2	2	2	39	601.3120	EYE BOLT	AN44-12A	
			38	601.3121	EYE BOLT	AN44-5A	
1	1	1	37	601.3007	GROMMET	MS21266-2N	
A/R	A/R	A/R	36	601.3011	P-SEAL		13
1	1	1	35	647.3201	GROUNDING CABLE ASSY		
			34	647.2511	NUT		
			33	647.2510	SLEEVE		
13	13	13	32	647.1812	SHIM		
2	2	2	31	647.1811	SPACER		
1	1	1	30	647.1602	DOUBLER ASSY		
1	1	1	29	647.1914	BRACKET		
1	1	1	28	647.7822	EYE BOLT FITTING RH		
1	1	1	27	647.7821	EYE BOLT FITTING LH		
			26	647.7818	MOUNTING CHANNEL		
7307	7304	7301	FIN	PART #	DESCRIPTION	MAT'L	SPEC

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
N/C	LAST PROTOTYPE REVISION: PER		N/C
1	INITIAL RELEASE	01/13/09	P. BRAVO
A	INCORPORATED ECH 02938, 03002, 03044, 03046	02/16/11	P. BRAVO
B	INCORPORATED ECH 05025	05/09/16	P. BRAVO
C	INCORPORATED ECH 05562, 05468	11/01/16	P. BRAVO

			1	25	647.7820	CROSS BRACKET AFT		
1	1	1	24	647.7819	CROSS BRACKET FWD			
1	1	1	23	647.7918	BRACKET			
1	1	1	22	647.7917	BRACKET			
2	2	2	21	647.7916	BRACKET			
1	1	1	20	647.7915	BRACKET			
1	1	1	19	647.7914	BRACKET			
2	2	2	18	647.7913	DOUBLER			
4	4	4	17	647.7912	CLIP			
2	2	2	16	647.7911	BRACKET			
2	2	2	15	647.7910	ANGLE BRACKET			
4	4	4	14	647.0112	STRUT BRACKET			
1	1	1	13	647.1810	NOSE DOOR DOUBLER			
1	1	1	12	647.1818	NOSE DOOR SPACER			
2	2	2	11	647.7701	STRUT ASSY			
2	2	2	10	647.7702	STRUT ASSY			
1	1	1	9	647.1815	GUSSET, RH			
1	1	1	8	647.1814	GUSSET, LH			
1	1	1	7	647.1915	SUPPORT ANGLE			
1	1	1	6	647.1913	TEE			
1	1	1	5	647.1610	WIPER DEFLECTOR, FWD			
1	1	1	4	647.1601	WIPER DEFLECTOR ASSY, AFT			
			3	647.1701	SKID DEFLECTOR ASSY			
1	1	1	2	647.7501	LOWER CUTTER ASSY			
			1	647.7401	UPPER CUTTER ASSY			
X				647.7307	EC135 T3/P3 CABLE CUTTERS KIT			13
				647.7306	T2/P2 REMOVABLE PROVISIONS KIT			13
				647.7305	T2/P2 FIXED PROVISIONS KIT			13
				647.7304	EC135 T2/P2 CABLE CUTTERS KIT			13
				647.7303	T1/P1 REMOVABLE PROVISIONS KIT			13
				647.7302	T1/P1 FIXED PROVISIONS KIT			13
				647.7301	EC135 T1/P1 CABLE CUTTERS KIT			13
7307	7304	7301	FIN	PART #	DESCRIPTION	MAT'L	SPEC	

QTY		PARTS LIST	
NEXT ASSY (S)		ORIGINAL DATE 11/24/09 DRAWN BY CHECKER A. QUAN D. BAKER DRAWING APPROVAL P. BRAVO DATE 05/09/16 CONTRACT NO.	
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES 3 PLACES DECIMALS ±.01 2 PLACES DECIMALS ±.005 ANGLES ±.5°	
		DART AEROSPACE APCAL INDUSTRIES INC. DBA DART AEROSPACE 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
		EC135 CABLE CUTTERS KIT	
SEE CAT# CODE	DWG. NO.	REV.	
B 07M26	647.7300	C	
SCALE NONE	SHEET 1 OF 8		

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1			111	647.1405	CUTTER ASSY (UPPER)		
2	2		110	601.3902	EYE BOLT		
2	2		109	601.2910	SCREW	MS27039-1-18	
4	4		108	601.3963	BOLT	93635A212	
8	8		107	601.3654	BOLT	UH9037-08016	
8	8		106	601.3655	LOCK WASHER	UH9025-0820K	
2	2		105	647.1702	SKID DEFLECTOR ASSY		
8	8	8	104	601.3214	CHERRY RIVET	CR3523-5-3	
24	24	24	103	601.3213	CHERRY RIVET	CR3523-4-4	
4	4	4	102	601.3212	CHERRY RIVET	CR3523-4-3	
5	5		101	601.1541	LOCKNUT	MS21042-08	
5	5		100	601.2765	SCREW	MS27039-0819	
1	1		98	647.2114	UPPER U CHANNEL		
1	1		97	647.7823	CROSS BRACKET AFT		
1	1	1	96	647.5701	GPS MOUNT KIT		
7307	7304	7301	FIND #	PART #	DESCRIPTION	MAT'L	SPEC

		8	95	601.1097	WASHER		NAS1149F0463P
		1	94	647.7919	SHIM		
A/R	A/R	A/R	93	600.0990	MAGNOBOND 6398 PART A		
A/R	A/R	A/R	92	600.0991	MAGNOBOND 6398 PART B		
A/R	A/R	A/R	91	601.2045	RTV		LOCITE 998
A/R	A/R	A/R	90	600.1012	SEALANT		PR-1425 CLASS 8
3	3	3	89	601.2375	WASHER		
4	4	4	88	601.3126	WASHER		NAS1149F0332P
12	12	8	87	601.3663	WASHER		NAS1149C0432R
89	89	86	86	601.1607	WASHER		NAS1149F0332P
25	25	14	85	601.2764	WASHER		NAS1149F0832P
2	2	2	84	601.3136	CHERRY RIVET		CR3212-5-6
8	8	8	83	601.3215	CHERRY RIVET		CR3522-5-3
8	8	8	82	601.3216	CHERRY RIVET		CR3522-4-3
12	12	12	81	601.2481	CHERRY RIVET		CR3213-5-4
16	16	16	80	601.2020	CHERRY RIVET		CR3213-5-3
17	17	17	79	601.2991	CHERRY RIVET		CR3213-4-6
8	8	8	78	601.1183	CHERRY RIVET		CR3213-4-5
16	16	16	77	601.1915	CHERRY RIVET		CR3213-4-4
24	24	24	76	601.0790	CHERRY RIVET		CR3213-4-3
4	4	4	75	601.1604	CHERRY RIVET		CR3213-4-2
4	4	4	74	601.1983	NUTPLATE RIVET		CCR27455-3-03
24	24	24	73	601.2207	NUTPLATE RIVET		CCR26455-3-03
3	3	3	72	601.2999	SCREW		
5	5	6	71	601.2829	SCREW		MS24694554
2	2	2	70	601.1954	SCREW		MS27039-1-17
4	4	4	69	601.2637	SCREW		MS27039-1-16
1	1	1	68	601.3012	SCREW		MS27039-1-15
4	4	4	67	601.1622	SCREW		MS27039-1-14
2	2	2	66	601.1953	SCREW		MS27039-1-12
6	6	6	65	601.1365	SCREW		MS27039-1-10
12	12	12	64	601.3069	SCREW		MS27039-1-09
3	3	3	63	601.2198	SCREW		MS27039-1-07
		2	62	601.3137	SCREW		MS27039-0816
4	4	4	61	601.2988	SCREW		MS27039-0813
1	1	1	60	601.2525	SCREW		MS27039-0807
4	4	4	59	601.3127	LOCKNUT		MS21042-5
2	2	2	58	647.8512	INSERT		
4	4	4	57	647.8511	INSERT		
20	20	18	56	647.8510	INSERT		
4	4	4	55	601.3128	NUT		AN316C4R
4	4	8	54	601.3209	LOCKNUT		MS21042.4
35	35	34	53	601.2943	LOCKNUT		MS21042-3
5	5	7	52	601.2973	LOCKNUT		MS21042-08
		4	51	601.3002	BOLT		NAS6604-66
7307	7304	7301	FIND #	PART #	DESCRIPTION	MAT'L	SPEC

ORIGINAL DATE 11/24/08		3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760)-724-5300	
DRAWN BY A. GUAN	CHECKED D. BARKER	DART AEROSPACE APICAL INDUSTRIES, INC. DBA DART AEROSPACE	
DRAWING APPROVAL J. BRADY	DATE 01/13/09		
CONTRACT NO.		EC135 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.01 2 PLACE DECIMALS ±.005 ANGLES ±.2°		REV B 07M26	647.7300 C
SCALE NONE		SHEET 2 OF 8	

1 2 3 4 5 6 7 8

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DETAIL E

1

52 2 PL
61 2 PL
85 4 PL

95 3

52 2 PL
62 2 PL
85 4 PL

58 2 PL
93 AR
94 AR

53 6 PL
56 6 PL
71 6 PL
86 6 PL
93 6 PL
94 6 PL

53 2 PL
56 2 PL
66 2 PL
86 2 PL
93 2 PL
94 2 PL

53 2 PL
64 2 PL
86 4 PL

26

27

19

8 PL 83

82 8 PL

24

2 PL 84

53 4 PL
56 4 PL
69 4 PL
86 8 PL
93 AR
94 AR

20

2 PL 16

2 PL 39
2 PL 59
2 PL 88

21 2 PL

104 4 PL
86 4 PL

22 4 PL

25

53 4 PL
56 4 PL
69 4 PL
86 8 PL
93 AR
94 AR

DETAIL A

2 PL 48
2 PL 54
4 PL 87

2 PL 11

14

46 2 PL
53 2 PL
86 4 PL

40 2 PL
55 2 PL

28

23

12 PL 81
8 PL 80

10 PL 53
10 PL 64
20 PL 86

8 PL 80

DETAIL E
TYPICAL GPS MOUNT KIT INSTALLATION

REF 59

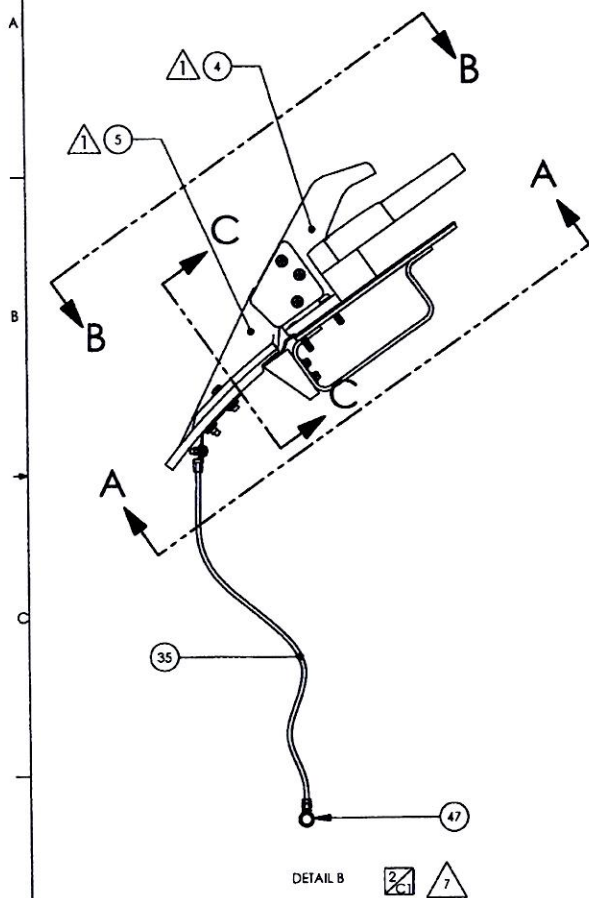
96

ORIGINAL DATE (MM/YY)	11/24/09	DART AEROSPACE APICAL INDUSTRIES INC. 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300
DRAWN BY	AL QUINN	
CHECKED BY	DAWSON	
DESIGNED BY	AL QUINN	
CONTRACT NO.		
DIMENSIONS UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ± .5°		EC135 CABLE CUTTERS KIT B. 07M26 SCALE: NONE SHEET 3 OF 8

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
2 PLACE DECIMALS $\pm .01$
3 PLACE DECIMALS $\pm .005$
FRACTIONS $\pm .001$

SIZE B	CAGE CODE 07M26	DWG. NO. 647.7300	REV. C
SCALE NONE		SHEET 3 OF 8	

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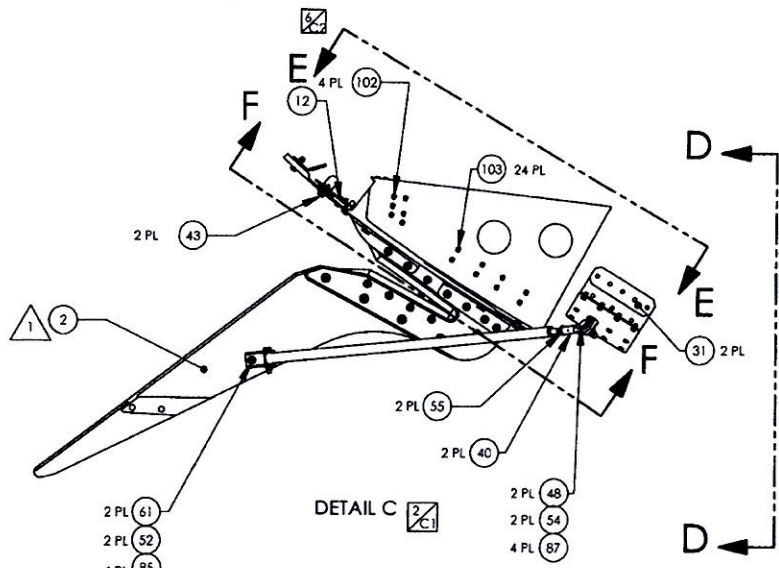
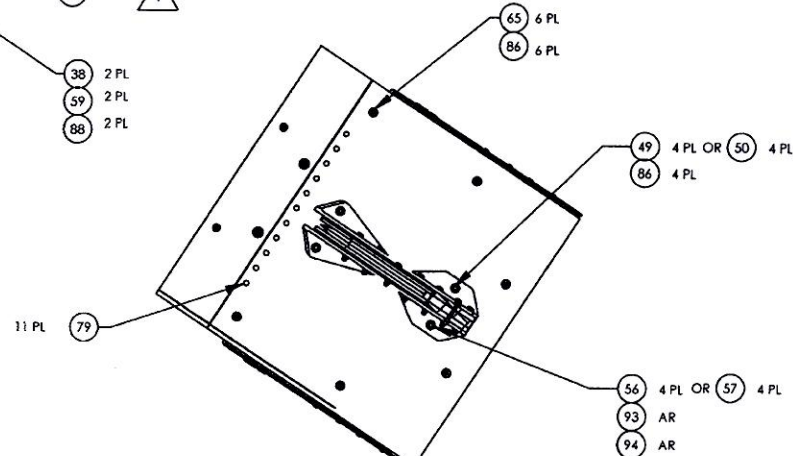
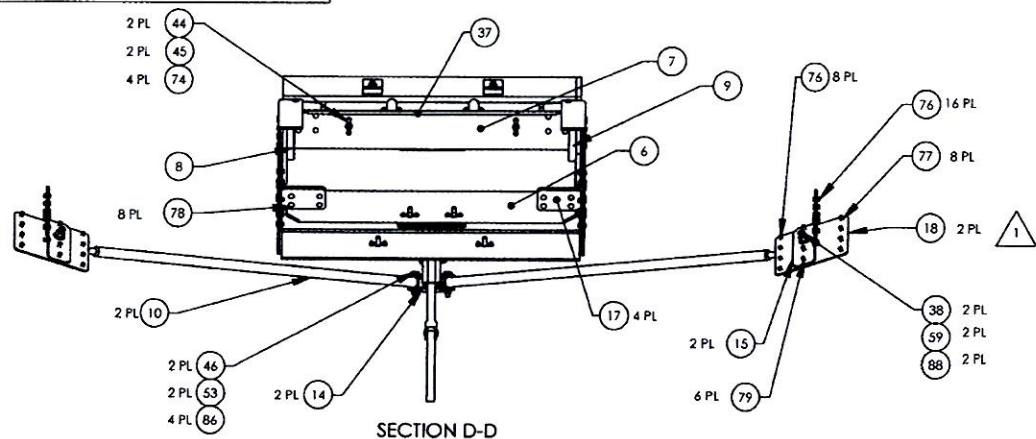
SECTION A-A

SECTION B-B

SECTION C-C

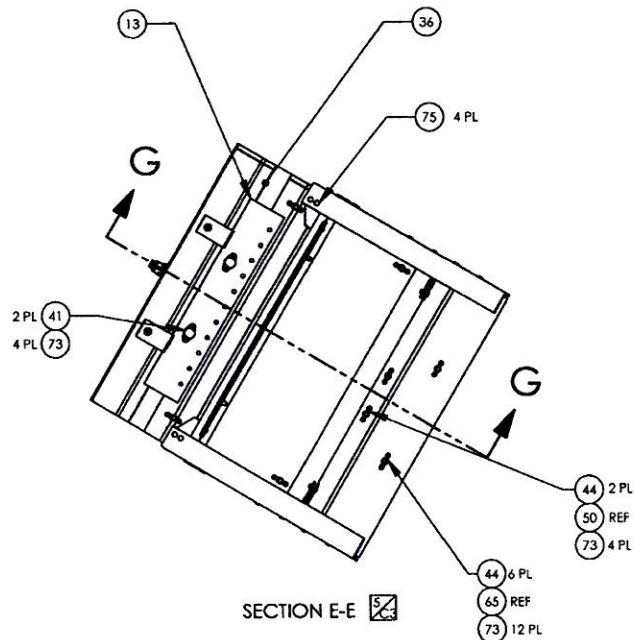
ORIGINAL DATE 11/24/99		3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY A. GUNN		CHECKED BY D. BARNES	
DRAWING APPROVAL P. BRAVO		APICAL INDUSTRIES, INC. DBA DART AEROSPACE	
CONTRACT NO.		EC135 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.3°		REV. B 07M26 647.7300 C	SCALE NONE SHEET 4 OF 8

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

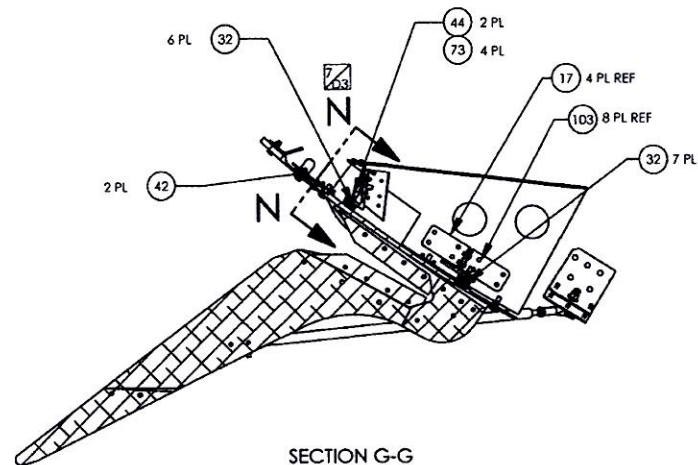


ORIGINAL DATE 11/20/09		3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760) 724-5300	
DRAWN BY A. GUAN		DART AEROSPACE APICAL INDUSTRIES, INC. DBA DART AEROSPACE	
CHECKED BY D. BARBER		EC 135 CABLE CUTTERS KIT	
DRAWING APPROVAL B. BRAYO 01/13/10		CAGE CODE 647.7300	
CONTRACT NO.		REV. C	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS .005 3 PLACE DECIMALS .0005 ANGLES ± 5°		SCALE NONE SHEET 5 OF 8	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



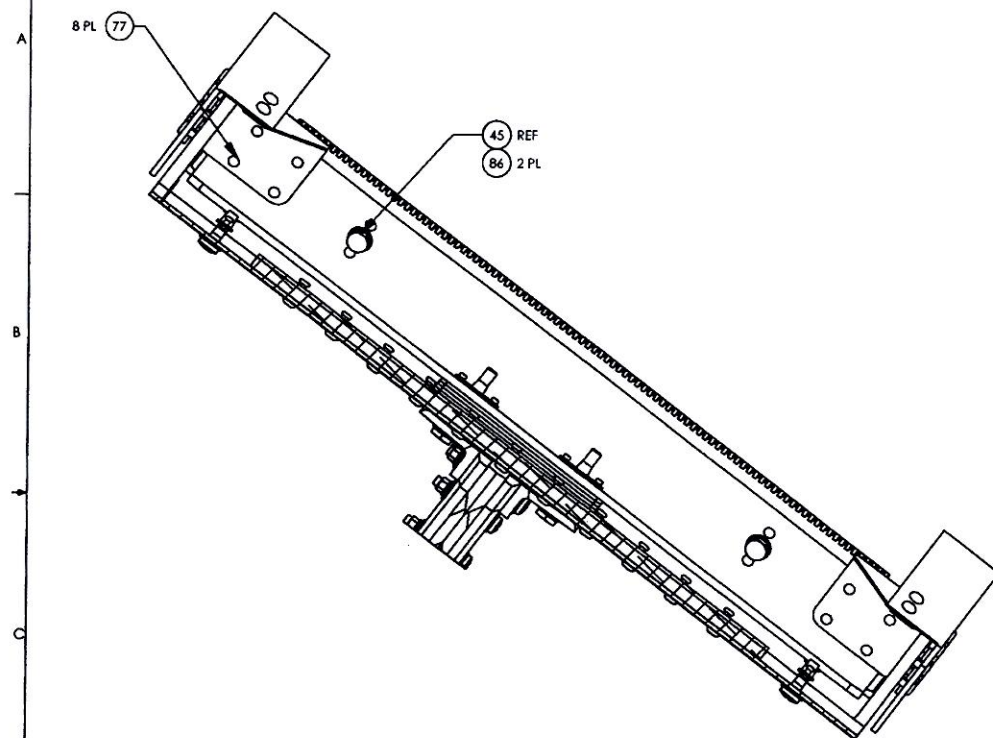
SECTION E-E



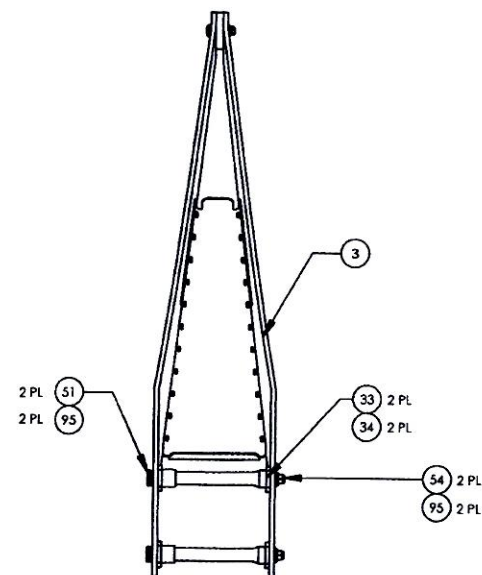
SECTION G-G

ORIGINAL DATE 11/24/09		3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY A. QUAN		CHECKED BY D. BARKER	
DRAWING APPROVAL P. BRAYO		APICAL INDUSTRIES INC. DBA DART AEROSPACE	
CONTRACT NO.		EC135 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ± .2°	SIZE B	CAGE CODE 07M26	DWG. NO. 647.7300
SCALE NONE		REV. C SHEET 6 OF 8	

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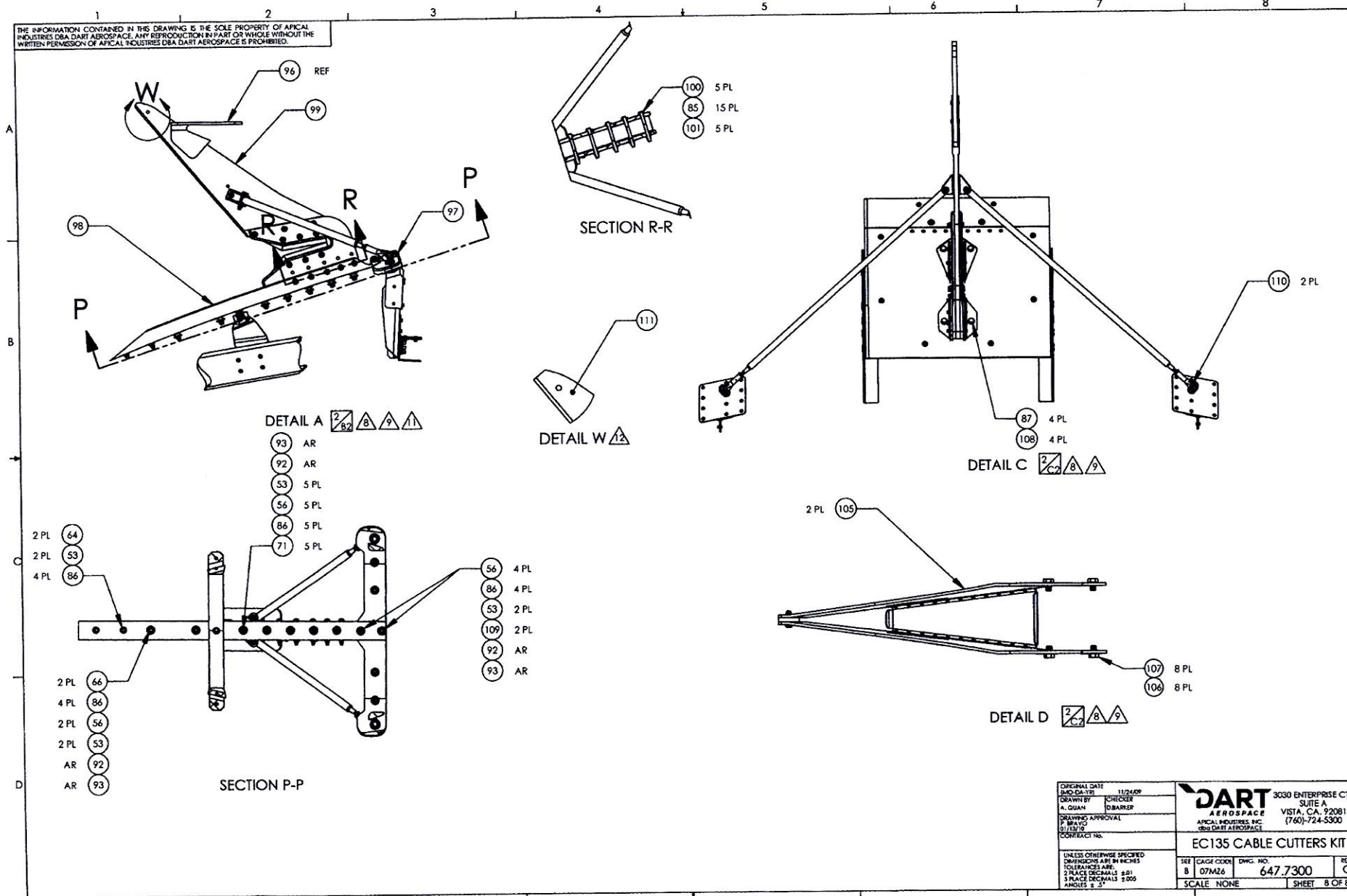
INBOARD →



DETAIL D $\frac{2}{01}$
TYP 2 PL $\frac{6}{86}$

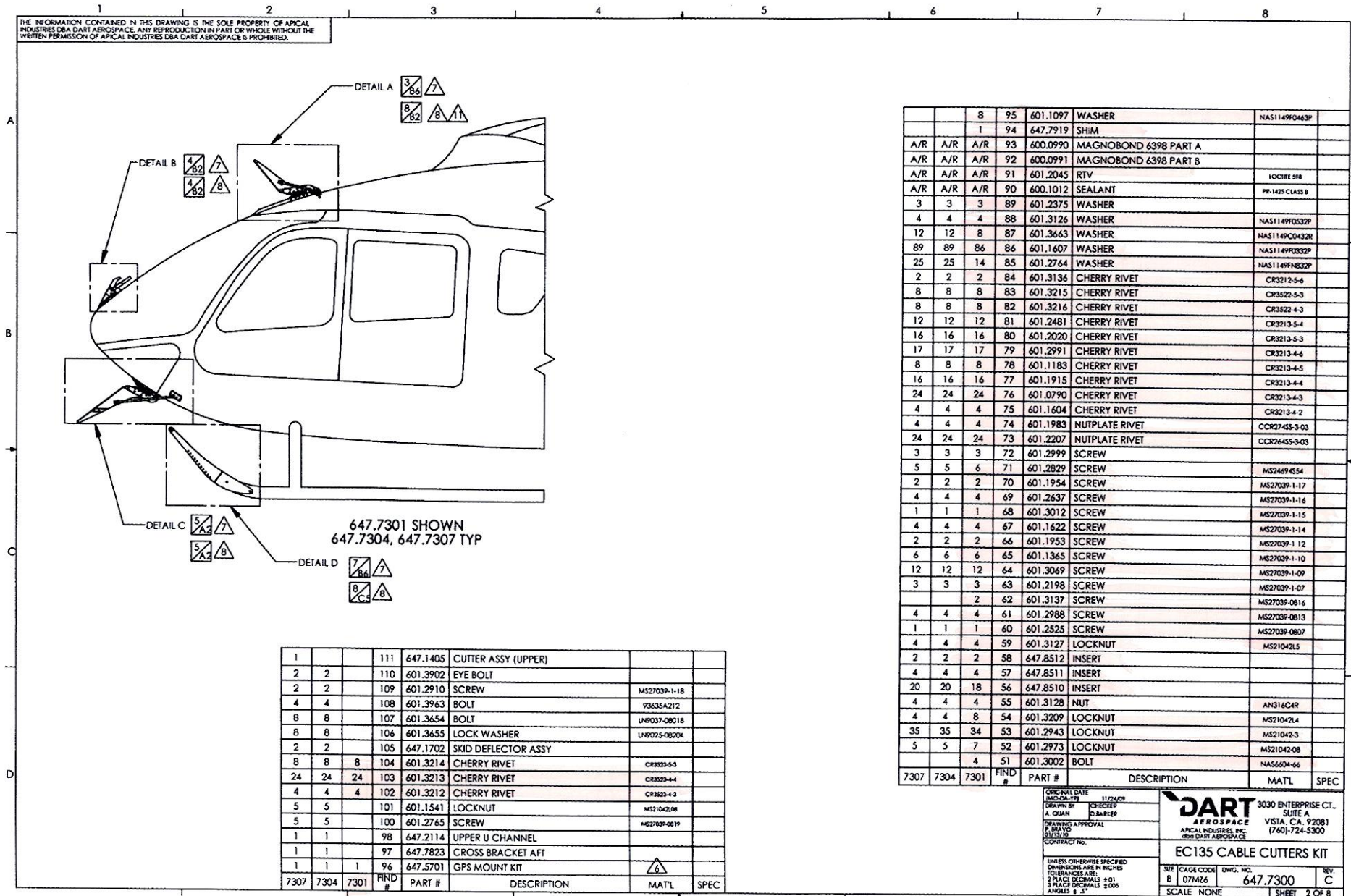
ORIGINAL DATE 11/24/09		 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300 APICAL INDUSTRIES INC. DBA DART AEROSPACE	
DESIGNED BY A. QUAN	CHECKED D. BARKER		
DRAWING APPROVAL P. BRUNO 01/13/10	CONTRACT NO.		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°			
SET B	CAGE CODE 07M26	DWG. NO. 647.7300	REV. C
SCALE NONE		SHEET 7 OF 8	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



ORIGINAL DATE 11/24/09		DART 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY A. GUAN	CHECKER D. BARNER	APICAL INDUSTRIES INC. DBA DART AEROSPACE	
DRAWING APPROVAL P. BRAYO 01/13/10		EC135 CABLE CUTTERS KIT	
CONTRACT NO.		SEE CAGE CODE B 07M26	DWG. NO. 647.7300
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.1°		SCALE NONE	REV. C SHEET 8 OF 8

REFERENCE ONLY



REFERENCE ONLY

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

NOTES: UNLESS OTHERWISE SPECIFIED

1 AFTER INSTALLATION, APPLY F/N 90 A/R TO FILL GAPS AND FILLET EDGES.

2 APPLY F/N 91 TO FAYING SURFACES.

3 DELETED.

4 MATCH DRILL HOLES THROUGH F/N 26 or F/N 98 AND FUSELAGE.

5 SHIM GAP BETWEEN F/N 1 & 26 AS NEEDED.

6 AT CUSTOMER'S OPTION, INSTALL F/N 96 BY MATCH DRILLING ONTO F/N 1 FOR KIT P/N 647.7301 or F/N 99 FOR KIT P/N 647.7304.

7 647.7301 INSTALLATION FOR EC135.

8 647.7304 INSTALLATION FOR EC135 T2/P2.

9 EXCEPT WHERE NOTED, INSTALLATION FOR 647.7304 AND 647.7307 SAME AS 647.7301.

10 CUT LENGTH: 16 INCHES.

11 INSTALLATION FOR 647.7307 AND 647.7304 ARE IDENTICAL EXCEPT 647.1405 (F/N 111) REPLACES 647.1404 (F/N 99).

12 DETAIL W REFLECTS THE UNIQUE 647.1405 ASSEMBLY (F/N 111) USED ON 647.7307 THAT REPLACES 647.1404 (F/N 99) ON 647.7304.

13 ADDITIONAL KITS FOR SUB-ASSEMBLIES OF THE 647.7301, 647.7304, AND 647.7307 ASSEMBLIES ARE DEFINED BY MPP-195

4	4	4	50	601.3130	BOLT	NAS6603-16	
4	4	4	49	601.1500	BOLT	NAS6603-12	
4	4	4	48	601.2669	BOLT	ANMC7A	
1	1	1	47	601.1324	BOLT	ANMCHA	
4	4	4	46	601.2826	BOLT	ANQ-11A	
2	2	2	45	601.2823	BOLT	ANQ-4A	
12	12	12	44	600.0795	NUTPLATE	MS21047-3	
2	2	2	43	601.3004	CAMLOC STUD		
2	2	2	42	601.3005	CAMLOC RETAINER		
2	2	2	41	601.3006	CAMLOC RECEPTACLE		
4	4	4	40	601.3119	CLEVIS	AN665-34R	
2	2	2	39	601.3120	EYE BOLT	AN44-12A	
			2	601.3121	EYE BOLT	AN44-5A	
1	1	1	37	601.3007	GROMMET	MS21244-2N	
A/R	A/R	A/R	36	601.3011	P-SEAL		△
1	1	1	35	647.3201	GROUNDING CABLE ASSY		
			4	647.2511	NUT		
			4	647.2510	SLEEVE		
13	13	13	32	647.1812	SHIM		
2	2	2	31	647.1811	SPACER		
1	1	1	30	647.1602	DOUBLER ASSY		
1	1	1	29	647.1914	BRACKET		
1	1	1	28	647.7822	EYE BOLT FITTING RH		
1	1	1	27	647.7821	EYE BOLT FITTING LH		
			1	647.7818	MOUNTING CHANNEL		
7307	7304	7301	FIND #	PART #	DESCRIPTION	MAT'L	SPEC

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	LAST PRELIMINARY REVISION: P84		N/C
N/C	INITIAL RELEASE	01/13/09	P. BRAVO
	INCORPORATED ECHS 00938, 00939, 03044, 03046	02/14/11	P. BRAVO
B	INCORPORATED ECH 03021	03/07/14	P. BRAVO
C	INCORPORATED ECH 05540, 05445	11/01/14	P. BRAVO

		1	25	647.7820	CROSS BRACKET AFT			
1	1	1	24	647.7819	CROSS BRACKET FWD			
1	1	1	23	647.7918	BRACKET			
1	1	1	22	647.7917	BRACKET			
2	2	2	21	647.7916	BRACKET			
1	1	1	20	647.7915	BRACKET			
1	1	1	19	647.7914	BRACKET			
2	2	2	18	647.7913	DOUBLER			
4	4	4	17	647.7912	CLIP			
2	2	2	16	647.7911	BRACKET			
2	2	2	15	647.7910	ANGLE BRACKET			
4	4	4	14	647.0112	STRUT BRACKET			
1	1	1	13	647.1810	NOSE DOOR DOUBLER			
1	1	1	12	647.1818	NOSE DOOR SPACER			
2	2	2	11	647.7701	STRUT ASSY			
2	2	2	10	647.7702	STRUT ASSY			
1	1	1	9	647.1815	GUSSET, RH			
1	1	1	8	647.1814	GUSSET, LH			
1	1	1	7	647.1915	SUPPORT ANGLE			
1	1	1	6	647.1913	TEE			
1	1	1	5	647.1610	WIPER DEFLECTOR, FWD			
1	1	1	4	647.1601	WIPER DEFLECTOR ASSY, AFT			
			2	3	647.1701	SKID DEFLECTOR ASSY		
1	1	1	2	647.7501	LOWER CUTTER ASSY			
			1	1	647.7401	UPPER CUTTER ASSY		
X				647.7307	EC135 T3/P3 CABLE CUTTERS KIT	△		
				647.7306	T2/P2 REMOVABLE PROVISIONS KIT	△		
				647.7305	T2/P2 FIXED PROVISIONS KIT	△		
	X			647.7304	EC135 T2/P2 CABLE CUTTERS KIT	△		
				647.7303	T1/P1 REMOVABLE PROVISIONS KIT	△		
				647.7302	T1/P1 FIXED PROVISIONS KIT	△		
		X		647.7301	EC135 T1/P1 CABLE CUTTERS KIT	△		
7307	7304	7301	FIND	PART #	DESCRIPTION	MAT'L	SPEC	

QTY	PARTS LIST	
NEXT ASSY (S)	ORIGINAL DATE (DDMMYY) A. OSMAN	11/2/09 C. BARBER
	DRAWING APPROVAL: P. BRAVO 01/13/09	CONTRACT NO.
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.01 ANGLES ±.3°	
	SEE CAGE CODE B 07M126	DWG. NO. 647.7300
	SCALE NONE	REV. C
		SHEET 1 OF 8

DART 3030 ENTERPRISE CT., SUITE A
VISTA, CA. 92081
(760)-724-5300

APICAL INDUSTRIES, INC.
DBA DART AEROSPACE

EC135 CABLE CUTTERS KIT

Work Order ID 161335

Thursday, May 11, 2017 1:23:16 PM

161335

Page 1

Item ID: 647.7301

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: EC135 T1/P1 Cable Cutters System

Start Date: 5/12/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 5/18/2017 Req'd Qty: 1.00

1

Customer:

Reference: SCHEDULED/C

Approvals:

Process Plan:

Date: MAY 10 2017

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

647.7300

C

100

Document Control

MAY 11 2017

100

DOCUMENT CONTROL

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile & type labels per PPP 647.7301

MAY 12 2017

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.00

Quality Control

United States Of America
Department of Transportation - Federal Aviation Administration
Supplemental Type Certificate

Number SR02307LA

This Certificate issued to

Apical Industries, Inc. dba Dart Aerospace
3030 Enterprise Court, Suite A
Vista, California 92081

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified herein meets the airworthiness requirements of Part 27 of the Federal Aviation Regulations.*

* Certification basis set forth in Type Certificate Data Sheet H88EU.

Original Product Type Certificate Number: H88EU

Make: Eurocopter

Model: EC135 P1, T1, P2, T2, P2+, T2+, P3, T3

Description of Type Design Change: Installation of Apical Industries, Inc. Cable Cutters Kit in accordance with FAA approved Apical Industries, Inc. Master Document List MD135-2, Revision A, dated June 24, 2010, or later FAA approved revision.

Limitations and Conditions: This approval requires the inspections and overhaul schedules to be performed as mandated by Apical Industries, Inc.'s Instructions for Continued Airworthiness, ICA135-21, Revision N/C, dated January 13, 2010, or later FAA accepted revision.

This installation should not be incorporated in any aircraft unless it is determined that the interrelationship between this installation and any previously approved configuration will not introduce any adverse effect upon the airworthiness of the aircraft. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of this permission.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: December 03, 2009

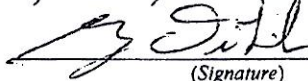
Date received: August 7, 2014

Date of issuance: July 14, 2010

Date amended: November 29, 2016



By direction of the Administrator


(Signature)

Gregory S. DiLibero
Manager, Airframe Branch
Los Angeles Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.